

# 2014 First Things First Early Childhood Summit



1

# Teledentistry-Assisted Affiliated Practice Dental Hygiene

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2

## Today's Topics

Affiliated Practice

Teledentistry

Benefits of Cloud Technologies

Protecting Teledentistry Patient Data

NAU's Project Zero

Teledentistry Training

3

## Affiliated Practice Dental Hygiene



4

## Affiliated Practice Dental Hygiene

Signed into law in 2004

APDHs

Provide preventive professional services

Acquire diagnostic data

Work in non-typical dental office settings

Affiliated dentist not present

5

## Affiliated Practice Dental Hygiene

APDHs may see patients of any age who are

Enrolled in a federal, state, or local health program – or

Enrolled in the National School Meal Program – or

From a family with an income of less than 200% of the federal poverty guidelines

6

## Affiliated Practice Dental Hygiene

Affiliated practice patients must be seen by a dentist within 12-months of initial treatment

Specific procedures concerning elderly and medically compromised patients



7

## Affiliated Practice Dental Hygiene

The APDH

A midlevel preventive dental provider

Board approved

Licensed

Insured



8

# APDH Services



9

## APDH Assessment Services

Record and review patient medical histories

Take blood pressure

Screen and photograph the oral cavity and surrounding structures

Chart dental restorations and clinical findings

Expose and process dental x-rays

Conduct a caries risk analysis

10

## APDH Preventive Services

All procedures for a complete prophylaxis

Apply dental sealants

As per ADA and CDC guidelines

Administer topical fluoride gels and varnish

As per ADA and CDC guidelines

11

## APDH Education Services

Discuss the patient's home care procedures

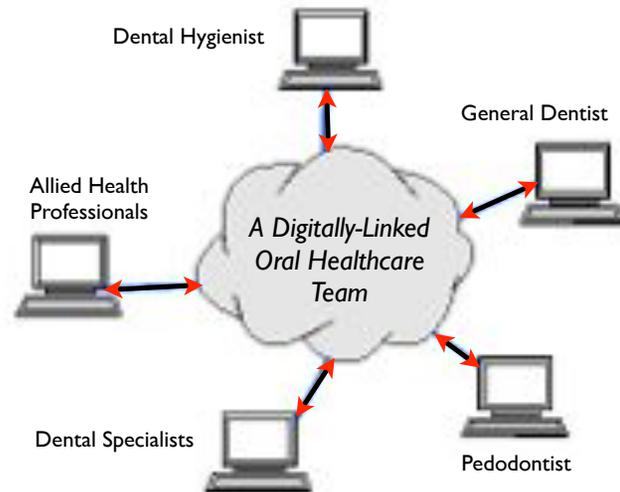
Provide appropriate home care instruction

Provide tobacco cessation intervention

Provide a tobacco cessation referral when appropriate

12

# Teledentistry



13

# Telehealth & Telemedicine

In use since the 1950s

Prevalent in rural communities

Effectively use telecommunication

Transmit electronic data

Graphics, audio, and video images  
shared between separated professionals

Diagnosis, consultation, and treatment planning

14

# Teledentistry

A Web-based intervention system

A distance-learning framework

A vehicle to decrease the phenomenon  
of professional isolation common to  
rural and underserved areas

15

# Teledentistry

Utilizing current technologies

Patient data is sent to a distant dentist

Uses of diagnostic data

Triage

Dental treatment planning

Referral

16

# Teledentistry Equipment



17

# Nomad Pro X-ray Unit



18

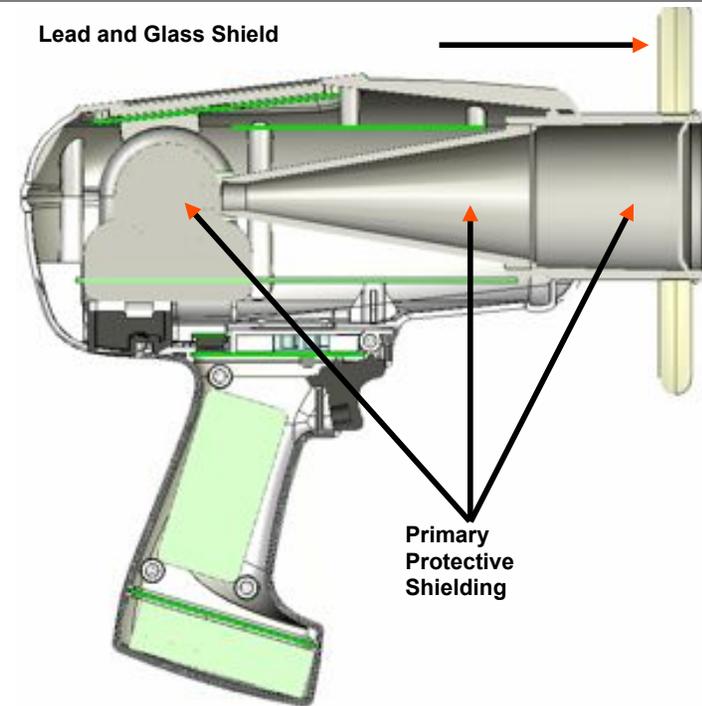
# Nomad Pro X-ray Unit



19

- Certified in all 50 States
- Easy to use
- Long battery life
- Protective carrying case
- Ideal for remote locations

Lead and Glass Shield



20

Area of Protection



21

# Scan-X Duo Processor



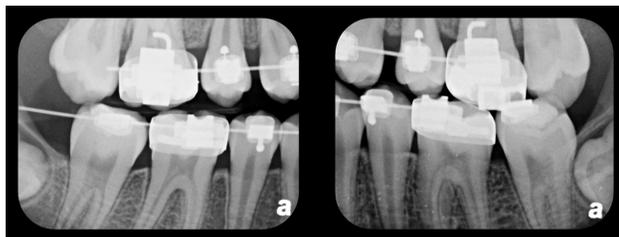
- Sturdy
- Easy to maintain
- Carrying case
- Easy to maintain
- Phosphor plates
- Scans and erases plates

22

# Phosphor Plates



- All film sizes
- Reusable 30,000 times
- Placed in barrier for reuse



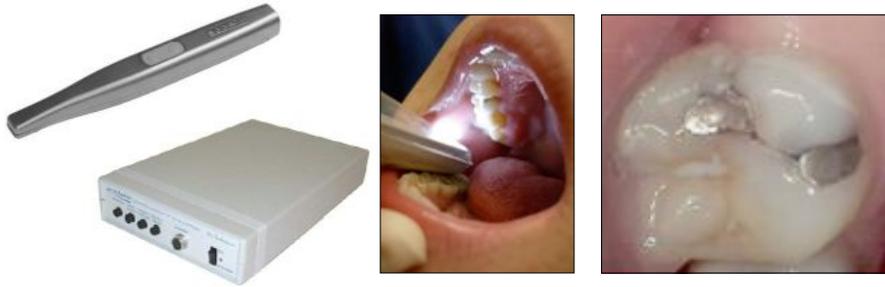
23



24

# Intraoral Cameras

Very valuable in the public health environment



25

# Intraoral Cameras

Projected images allow excellent viewing of the intraoral environment

Barrier sheaths eliminate the need for mirrors and sterilizing equipment

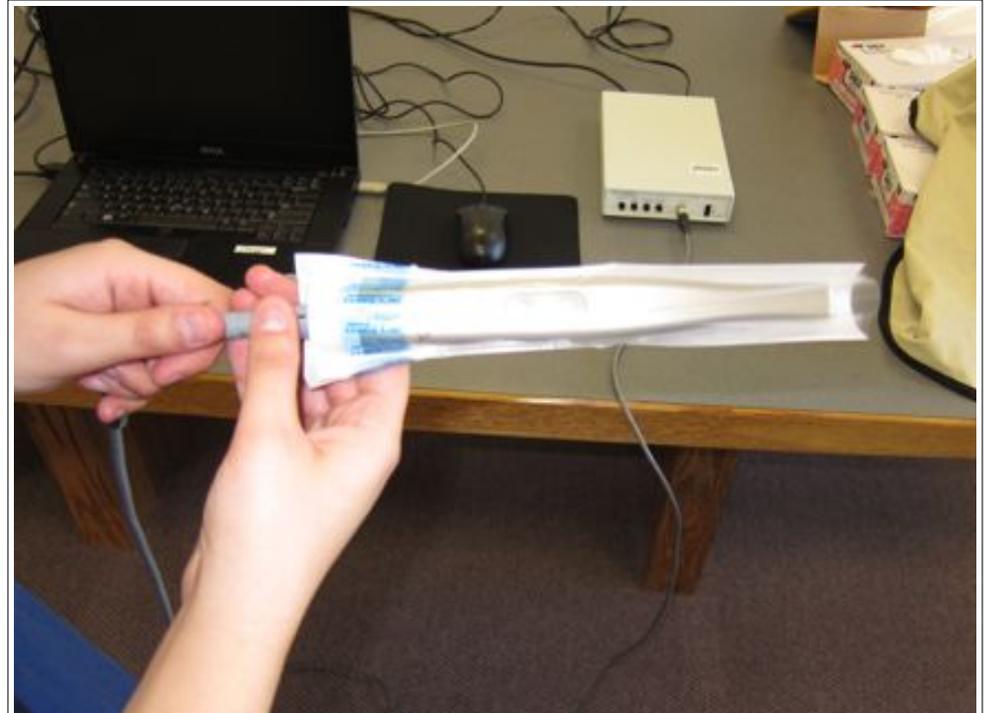
Ideal to work with children

Photos are easy to take

26



27



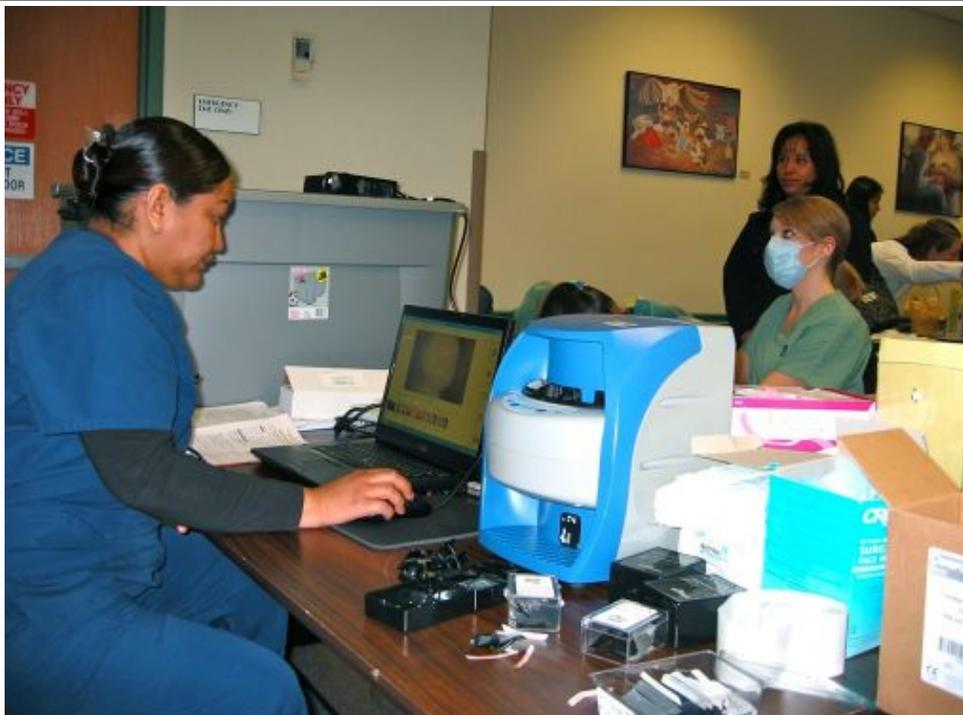
28



29



30



31

## VELscope



Another digital tool

32

## VELscope Images



The appearance of normal tissue

33

## VELscope Images



Questionable tissue

34

## VELscope Images



Squamous cell carcinoma

35

## VELscope & Spit Tobacco



36

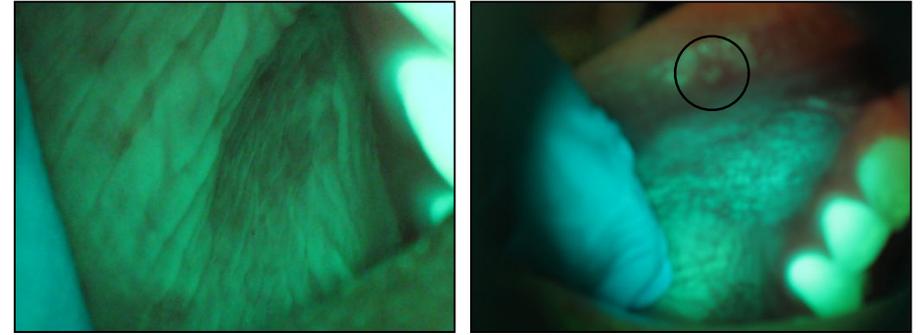
# VELscope & Spit Tobacco



Snuff dipper's patch - tissue is corrugated

37

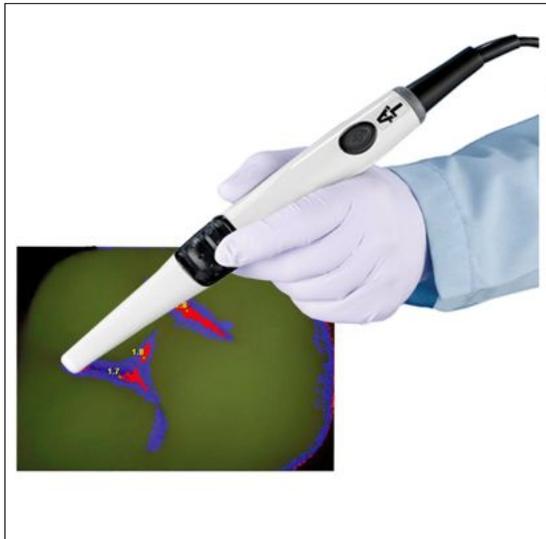
# VELscope & Spit Tobacco



Tissue very questionable under VELscope

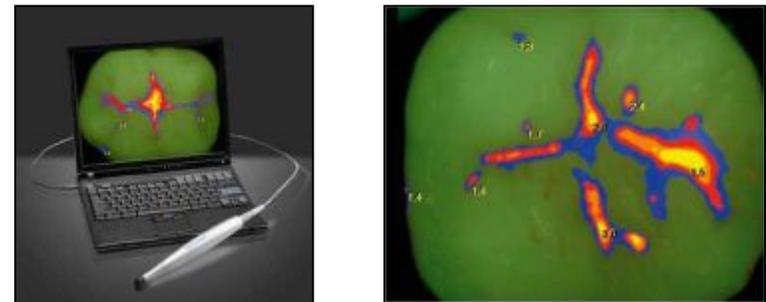
38

# Spectra



39

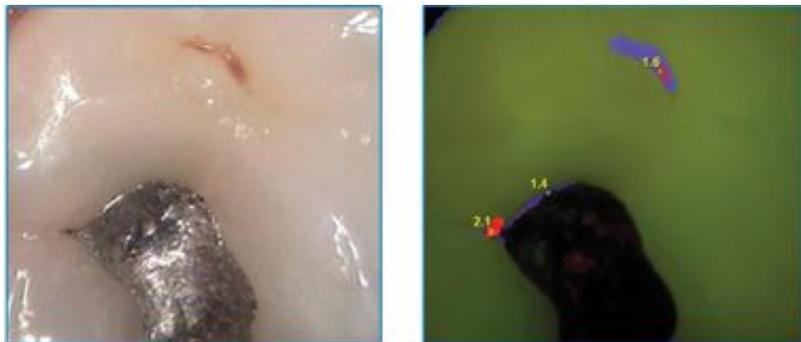
# Spectra



Green	Blue	Red	Orange	Yellow
Sound Enamel	Incipient Enamel Caries	Deep Enamel Caries	Incipient Dentin Caries	Advanced Dentin Caries

40

## Spectra



Images kept in patient's records

41

## Soporo Life



Intraoral camera and caries detection

42

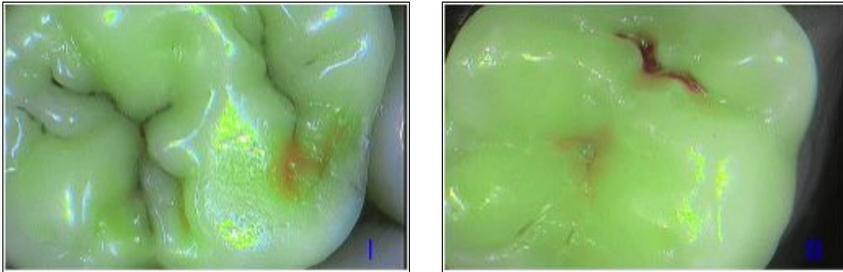
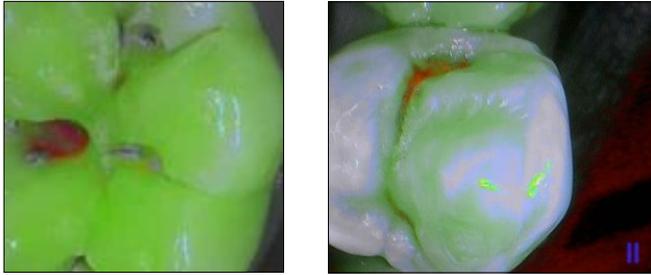


43



44

# Soporo Life



45

# Remote Diagnostic Services



46



47

# Linking the Team Members

Store and forward the diagnostic data

On a laptop computer

On a DVD, CD or e-mail

Thumb drive or hard drive

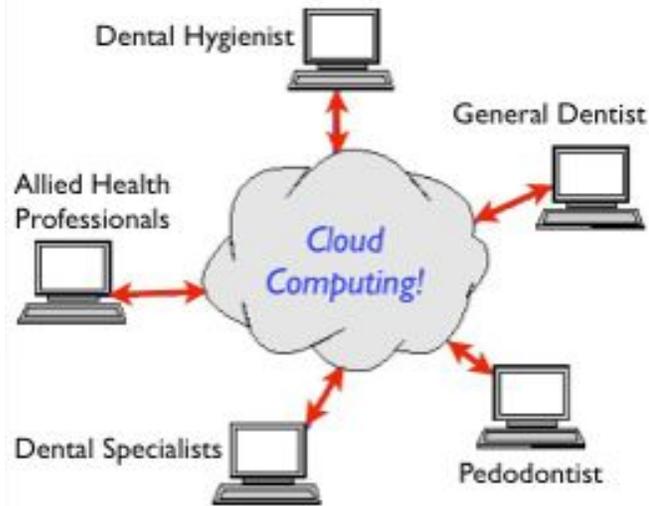
Direct real-time link to team members

Satellite link

Hard wired Internet connection

48

# Cloud Technology



49

# Cloud Advantages



- Central data storage
- Improve accessibility
- Minimize redundancy
- Monitor projects
- Standardize reports
- Do more for less

50

# Kaibab Band of the Paiutes



450 Mile Round Trip

51



52

# Kaibab Band of the Paiutes

Screened and referred 23 kids for care

Five had immediate needs - acquired their digital diagnostic data

Forwarded diagnostic data to the affiliated dentist then on to the IHS pedodontist at Polacca

Kids scheduled for immediate specific treatment

Saved the patients' families 450-mile roundtrips for exams and treatment planning



53

54

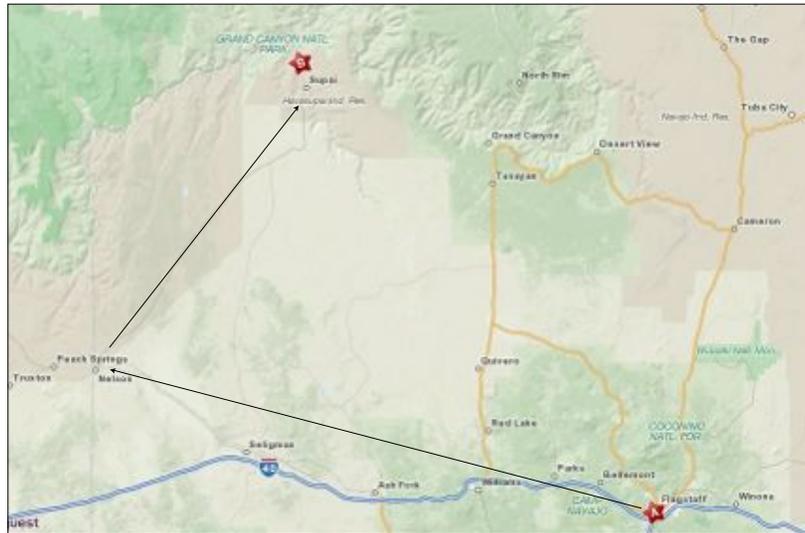


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56

# Havasupai



57

# Havasupai



58

# Havasupai



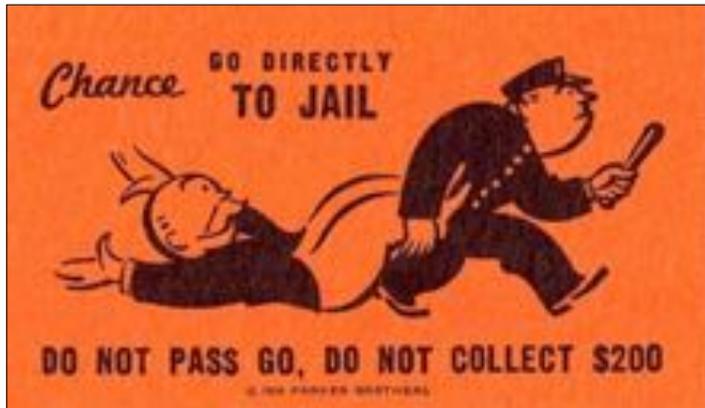
59

# Havasupai



60

# Protecting Patient Data



61

# HIPAA

HIPAA - 1996

Federal Law

Improve health care efficiency

Reduce fraud and abuse

62

# HIPAA

Patients' rights over health information

Sets rules and limits who can look at and receive patients' health information

Applies to electronic, written, and oral health information

63

# HIPAA

Regulates

Health Plans

Health Care Providers

Health Care Clearinghouses

Audio, video, and medical info

All carriers must be compliant

64

# HITECH

2009 - Electronically transmitted patient data

Password-only access

Encryption of the transmission

Periodic security audits

An audit trail – username, password

Assistance with breach notification

Informed consent

65

# HIPAA 5010

2012 - Replaced old HIPAA Standard

Specific to Electronic Data Exchange

Cites dentistry

Charts

X-rays

Other types of images

66

# DICOM

Medical imaging standard

Handling data

Storing data

Transmitting data

Data only between DICOM units

67

# DICOM

Each image contains the patient's ID

Images can never be separated

Secure real-time transmission

Secure store and forward of data

Current on dental management software

68

# NAU's Project Zero



69

# Project Zero

A team approach to preventive care

Patients progress station-by-station

Seeing 80-100 children per day

Patient records stored in the cloud

An adoptable model for FTF

70

# Project Zero



One truck load  
Setup in an open area

71

# Project Zero

Check in

Chart existing conditions

Diagnosis for sealants

Sealant station

Tooth brush prophylaxis

Fluoride varnish

Education and home care instructions

Referral



72

# Check In



73

# Check In



74

# Check In



Initial patient data to the Cloud  
Available at the next station

75

# Existing Conditions



76

# Existing Conditions



Additional patient data to the Cloud  
Available at the next station

77

# Sealant Diagnosis



78

# Sealant Diagnosis



Additional patient data to the Cloud  
Available at the next station

79

# Sealant Diagnosis



Additional patient data to the Cloud  
Need for referral noted

80

# Sealant Station



81

# Sealant Station



Additional patient data to the Cloud  
Available at the next station

82

# Toothbrush Prophy Station



83

# Toothbrush Prophy Station



Additional patient data to the Cloud  
Available at the next station

84

# Fluoride Station



85

# Fluoride Station



Additional patient data to the Cloud  
Available at the next station

86

# Patient Education



87

# Patient Education



88

## Check Out Station



Additional patient data to the Cloud  
Referrals finalized to be sent home

89

## Additional Supplies



90

## Teledentistry Training



91

## NAU's Training Program

Adaptable to specific organizations

Training at your organization

Train your trainers

Training at NAU

Assistance in the field

92

# NAU's Training Materials

Visual presentations

Presentation notes for the instructor

Comprehensive teacher's manuals

Student handouts and study materials

Testing materials

93

# NAU's Training Materials

## Track 1



Interested parties

Funders

Public organizations

School districts

94

# NAU's Training Materials

## Track 1 Courses

*Enhanced Dental Teams*

*The APDH*

*Teledentistry*

*HIPAA and Teledentistry*



95

# NAU's Training Materials

## Track 2 - Comprehensive

Dental professionals

Complete training courses

Train the trainer materials

Continuing education courses

96

# NAU's Training Materials

## Track 2 Courses

*The APDH*

*Teledentistry*

*HIPAA and Teledentistry*

*Nomad Training & Certification*



97

# NAU's Training Materials

## Track 2 Courses

*Teledentistry Equipment Setup*

*Conducting the Hands on Training*

*Future Trends in Teledentistry*



98

# Questions?

99

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100